

Deploy a high-availability web app using CloudFormation

Network Infrastructure :

➤ VPC

Create VPC Actions

Filter by tags and attributes or search by keyword

	Name	aws:cloudfo	VPC ID	State	IPv4 CIDR	IPv6 CIDR (Network Border Group)
<input checked="" type="checkbox"/>	UdagramWebApp	VPC	vpc-01462ff766a81f8c6	available	10.0.0.0/16	-

VPC: vpc-01462ff766a81f8c6

Description CIDR Blocks Flow Logs Tags

Add/Edit Tags

Key	Value
Name	UdagramWebApp
aws:cloudformation:logical-id	VPC
aws:cloudformation:stack-id	arn:aws:cloudformation:us-west-2:486251485842:stack/ourinfraudagram/e251c570-adbf-11ea-904b-02f90cd818d0
aws:cloudformation:stack-name	ourinfraudagram

➤ Subnets

Create subnet Actions

Filter by tags and attributes or search by keyword

	Name	Subnet ID	State	VPC	IPv4 C
<input type="checkbox"/>	UdagramWebApp Public Subnet (AZ2)	subnet-01b7c33dacee15922	available	vpc-01462ff766a81f8c6 ...	10.0.1.
<input type="checkbox"/>	UdagramWebApp Private Subnet (AZ1)	subnet-0abd4fc9185240e69	available	vpc-01462ff766a81f8c6 ...	10.0.2.
<input type="checkbox"/>	UdagramWebApp Public Subnet (AZ1)	subnet-0b0b5743d65d840e3	available	vpc-01462ff766a81f8c6 ...	10.0.0.
<input type="checkbox"/>	UdagramWebApp Private Subnet (AZ2)	subnet-0c12ed1ac7af99267	available	vpc-01462ff766a81f8c6 ...	10.0.3.

➤ Route Tables

Create route table

Actions

1 to 5 of 5

<input type="checkbox"/>	Name	Route Table ID	Explicit subnet association	Edge associations
<input type="checkbox"/>	UdagramWebApp Public Routes	rtb-0529c90fa0d9f8be1	2 subnets	-
<input type="checkbox"/>	UdagramWebApp Private Routes (AZ1)	rtb-09bf5b1858233f059	subnet-0abd4fc9185240e69	-
<input type="checkbox"/>	UdagramWebApp Private Routes (AZ2)	rtb-0c04beca2e1b717d0	subnet-0c12ed1ac7af99267	-

➤ Internet Gateway

igw-08bcff0e9d2105e74 / UdagramWebApp

Actions

DetailsInfo

Internet gateway ID

igw-08bcff0e9d2105e74

State

Attached

VPC ID

[vpc-01462ff766a81f8c6](#) | [UdagramWebApp](#)

Owner

486251485842

Tags

Manage tags

Key

Value

aws:cloudformation:stack-id

arn:aws:cloudformation:us-west-2:486251485842:stack/ourinfraudagram/e251c570-a

Name

UdagramWebApp

aws:cloudformation:stack-name

ourinfraudagram

➤ NatGateways

Create NAT Gateway

Actions

1 to 2 of 2

	Name	NAT Gateway ID	Status	Status Message	Elastic IP Address	Private IP Address	Net
<input checked="" type="checkbox"/>		nat-03df3d4c7fdb...	available	-	52.13.94.234	10.0.0.176	eni-

NAT Gateway: nat-03df3d4c7fdb6ced5

Details

Monitoring

Tags

NAT Gateway ID

nat-03df3d4c7fdb6ced5

Status

available

Status Message

-

Elastic IP Address

52.13.94.234

Private IP Address

10.0.0.176

Network Interface ID

eni-0f4e047f6b19a52b9

VPC

vpc-01462ff766a81f8c6 | UdagramWebApp

Subnet

subnet-0b0b5743d65d840e3 | UdagramWebApp Public Subnet (AZ1)

Created

June 13, 2020 at 9:51:22 PM UTC

Deleted

-

Servers Infrastructure

➤ Security Groups

Security Groups (2/4)

Info

Actions

Create security group

1

	Name	Security group ID	Security group name	VPC ID
<input checked="" type="checkbox"/>	-	sg-015f3da7f0c335b82	ourappudagram-WebServerSecurityGroup...	vpc-01462ff766a81f8c6
<input checked="" type="checkbox"/>	-	sg-073d7a70c04189a2c	ourappudagram-LBSecurityGroup-GNDV6...	vpc-01462ff766a81f8c6

➤ IAM Role, Policy, Instance Profile

[Roles](#) > ourappudagram-UdacityS3ReadOnlyEC2-EYWIUIODHZ4

Summary Delete role

Role ARN	arn:aws:iam::486251485842:role/ourappudagram-UdacityS3ReadOnlyEC2-EYWIUIODHZ4 🔗
Role description	Edit
Instance Profile ARNs	arn:aws:iam::486251485842:instance-profile/ourappudagram-ProfileWithRolesForOurApp-KCSMQ53IXZCT 🔗
Path	/
Creation time	2020-06-13 23:21 UTC
Last activity	2020-06-14 01:16 UTC (Today)
Maximum CLI/API session duration	1 hour Edit

Permissions
Trust relationships
Tags
Access Advisor
Revoke sessions

▼ Permissions policies (1 policy applied)

[Attach policies](#) [+ Add inline policy](#)

Policy name ▼	Policy type ▼	
▶ S3BucketsPolicy	Inline policy	✕

▶ Permissions boundary (not set)

➤ Launch configuration

[Create launch configuration](#)
[Create Auto Scaling group](#)
[Copy to launch template](#)
Actions ▼

Filter: 1 to 1 of 1 Launch Configurations

<input checked="" type="checkbox"/>	Name	AMI ID	Instance Type	Spot Price	Creation Time
<input checked="" type="checkbox"/>	ourappudagra...	ami-00363424...	t3.medium		June 13, 2020 at 11:23:30 PM U...

Launch Configuration: ourappudagram-WebAppLaunchConfig-DFJDG3KCLR3T

Details
Copy launch configuration

AMI ID	ami-003634241a8fcdce0	Instance Type	t3.medium
IAM Instance Profile	ourappudagram-ProfileWithRolesForOurApp-KCSMQ53IXZCT	Kernel ID	
Key Name	udagramkey	Monitoring	true
EBS Optimized	false	Security Groups	sg-015f3da7f0c335b82
Spot Price		Creation Time	Sat Jun 13 23:23:30 GMT+000 2020
RAM Disk ID		Block Devices	/dev/sdk
User data	View User data	IP Address Type	Only assign a public IP address to instances launched in the default VPC and subnet. (default)

User data



```
#!/bin/bash
apt-get update -y
apt-get install unzip awscli -y
apt-get install apache2 -y
systemctl start apache2.service
cd /var/www/html
aws s3 cp s3://udacity-demo-final/udacity.zip .
unzip -o udacity.zip
```

➤ Auto Scaling Group

[Create Auto Scaling group](#) [Actions](#)

Filter:

1 to 1 of 1 Auto Scaling Groups

<input type="checkbox"/>	Name	Launch Configuration	Instances	Desired	Min	Max	Availability Zones	Default Cooldown	Health Check Grace Period
<input checked="" type="checkbox"/>	ourappudagra...	ourappudagram-WebA...	4	4	4	8	us-west-2a, us-west-2b	300	0

Auto Scaling Group: ourappudagram-WebAppGroup-IES88CFH8F3

Details

Activity History

Scaling Policies

Instances

Monitoring

Notifications

Tags

Scheduled Actions

Lifecycle Hooks

Launch Configuration ⓘ ourappudagram-WebAppLaunchConfig-DFJDG3KCLR3T

Desired Capacity ⓘ 4

Min ⓘ 4

Max ⓘ 8

Availability Zone(s) ⓘ us-west-2a, us-west-2b

Subnet(s) ⓘ subnet-0abd4fc9185240e69,subnet-0c12ed1ac7af99267

Classic Load Balancers ⓘ

Target Groups ⓘ ourap-WebAp-1IWBPGV7G9QD1

Health Check Type ⓘ EC2

Health Check Grace Period ⓘ 0

➤ Load Balancer

Create Load Balancer

Actions

Filter by tags and attributes or search by keyword

1 to 1 of 1

	Name	DNS name	State	VPC ID	Availability Zones	
	ourap-WebAp-WTYCHPOF4...	ourap-WebAp-WTYCHPOF4...	active	vpc-01462ff766a81f8c6	us-west-2b, us-west-2a	a

Load balancer: ourap-WebAp-WTYCHPOF4BSY

DescriptionListenersMonitoringIntegrated servicesTags

Basic Configuration

Name	ourap-WebAp-WTYCHPOF4BSY
ARN	arn:aws:elasticloadbalancing:us-west-2:486251485842:loadbalancer/app/ourap-WebAp-WTYCHPOF4BSY/11f5a77d2d10d07c
DNS name	ourap-WebAp-WTYCHPOF4BSY-1386810097.us-west-2.elb.amazonaws.com (A Record)
State	active
Type	application
Scheme	internet-facing
IP address type	ipv4
	Edit IP address type
VPC	vpc-01462ff766a81f8c6
Availability Zones	subnet-01b7c33dacee15922 - us-west-2b

➤ Listener

Load balancer: ourap-WebAp-WTYCHPOF4BSY

DescriptionListenersMonitoringIntegrated servicesTags

A listener checks for connection requests using its configured protocol and port, and the load balancer uses the listener rules to route requests to targets. You can add, remove, or update listeners and listener rules.

Add listenerEditDelete

<input type="checkbox"/>	Listener ID	Security policy	SSL Certificate	Rules
<input checked="" type="checkbox"/>	HTTP : 80 arn...8d467319d844e002	N/A	N/A	Default: forwarding to ourap-WebAp-1IWBPGV7G9QD1 View/edit rules

➤ Target Group

Create target group

Actions

Filter by tags and attributes or search by keyword

1 to 1 of 1

Name	Port	Protocol	Target type	Load Balancer	VPC ID	Monitoring
ourap-WebAp-1IWBPGV7G...	80	HTTP	instance	ourap-Web...	vpc-01462ff766a81f8c6	

Target group: ourap-WebAp-1IWBPGV7G9QD1

Description

Targets

Health checks

Monitoring

Tags

Basic Configuration

Name

ourap-WebAp-1IWBPGV7G9QD1

ARN

arn:aws:elasticloadbalancing:us-west-2:486251485842:targetgroup/ourap-WebAp-1IWBPGV7G9QD1/f468403a7ca02a90

Protocol

HTTP

Port

80

Target type

instance

VPC

vpc-01462ff766a81f8c6

Load balancer

ourap-WebAp-WTYCHPOF4BSY

Attributes

Name	Port	Protocol	Target type	Load Balancer	VPC ID	Monitoring
ourap-WebAp-1IWBPGV7G...	80	HTTP	instance	ourap-Web...	vpc-01462ff766a81f8c6	

Target group: ourap-WebAp-1IWBPGV7G9QD1

Description

Targets

Health checks

Monitoring

Tags

The load balancer starts routing requests to a newly registered target as soon as the registration process completes and the target passes the initial health checks. If demand on your targets increases, you can register additional targets. If demand on your targets decreases, you can deregister targets.

Edit

Registered targets

Instance ID	Name	Port	Availability Zone	Status	Description
i-02c0d6c6fb520f46a		80	us-west-2a	healthy	This target is currently passing target group's health checks.
i-048eb6d1a13f378fb		80	us-west-2a	healthy	This target is currently passing target group's health checks.
i-00f269f12106efcdc		80	us-west-2b	healthy	This target is currently passing target group's health checks.
i-0762789ae3fb45027		80	us-west-2b	healthy	This target is currently passing target group's health checks.

Availability Zones

Availability Zone	Target count	Healthy?
us-west-2a	2	Yes
us-west-2b	2	Yes

➤ DNS name or Public URL of the Load Balancer

ourappudagram

Delete

Update

Stack actions ▼

Create stack ▼

Stack info

Events

Resources

Outputs

Parameters

Template

Change sets

Outputs (1)

↺

⚙

🔍 Search outputs

Key ▲	Value ▼	Description ▼	Export name ▼
WebAppLBDNSName	http://ourap-WebAp-WTYCHPOF4BSY-1386810097.us-west-2.elb.amazonaws.com	DNS name or Public URL of the Load Balancer	UdagramWebApp-LB-DNSName

Non sécurisé — ourap-webap-wtychpof4bsy-1386810097.us-west-2.elb.a

↺

Cloud DevOps En...

Chat - Udacity

CloudFormation -...

Udacity Project U...

Google Traduction

LinkedIn

Udagram

it works! Udacity Project Udagram a High-Availability web application.

```

ubuntu@ip-10-0-0-76:/var/log$ cd ../www/html/
ubuntu@ip-10-0-0-76:/var/www/html$ ls -ltr
total 12
-rw-r--r-- 1 root root 251 Jun 10 21:04 index.html
drwxrwxr-x 2 root root 4096 Jun 10 21:05 __MACOSX
-rw-r--r-- 1 root root 727 Jun 13 22:52 udacity.zip
ubuntu@ip-10-0-0-76:/var/www/html$

```